



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,093	03/30/2004	Erik de la Iglesia	06897.P003	7295
78855	7590	05/26/2010	EXAMINER	
Patent Capital Group 6119 McCommas Blvd Dallas, TX 75214			NGUYEN, KIM T	
			ART UNIT	PAPER NUMBER
			2163	
			NOTIFICATION DATE	DELIVERY MODE
			05/26/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

thomasframe@patcapgroup.com
roseanne.cisneros@patcapgroup.com
patbradford@patcapgroup.com

Office Action Summary	Application No. 10/814,093	Applicant(s) IGLESIA ET AL.	
	Examiner KIM T. NGUYEN	Art Unit 2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17, 26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 26 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/30/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/25/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. Content leaving a local network can be captured. Objects captured over a network by a capture system can be indexed to provide enhanced search and content analysis capabilities. In one embodiment the objects can be indexed using a data structure having a source address field to indicate an origination address of the object, a destination address field to indicate a destination address of the object, a source port field to indicate an origination port of the object, a destination port field to indicate a destination port of the object, a content field to indicate a content type from a plurality of content types identifying a type of content contained in the object, and a time field to indicate when the object was captured. The data structure may also store a cryptographic signature of the object to ensure the object is not altered after capture. However, this inventive concept has been repeatedly done by the following prior arts.
2. (U.S. 7,185,073 B1) by Gai et al. ("Gai")
3. "Cryptographic Hash Functions" by Bart Preneel ("Preneel").

Response to Arguments

4. Applicant's arguments filed on 02/25/2010 have been fully considered but they are not persuasive for the following reasons:

Applicant argues that Gai does not disclose "object of a communication captured, extracted, and stored". However, Gai discloses (on column 8 lines 31-52) software entities executing on the various end stations and servers typically communicate with each other by exchanging discrete packets or frames of data

Art Unit: 2163

according to predefined protocols, such as the Transmission Control Protocol/Internet Protocol (TCP/IP), the Internet Packet Exchange (IPX) protocol, the AppleTalk protocol, the DECNet protocol or NetBIOS Extended User Interface (NetBEUI). In this context, a protocol consists of a set of rules defining how the entities interact with each other. Data transmission over the network consists of generating data in a sending process executing on a first end station, passing that data down through the layers of a protocol stack where the data are sequentially formatted for delivery over the links as bits. **Those frame bits are then received at the destination station where they are re-assembled and passed up the protocol stack to a receiving process.** Each layer of the protocol stack typically adds information (in the form of a header) to the data generated by the upper layer as the data descends the stack. At the destination station, these headers are stripped off one-by-one as the frame propagates up the layers of the stack until it arrives at the receiving process.

Applicant argues that Gai does not disclose “generating a tag describing an object of a communication in which the fields of the tag are obtained from the communication”. However, Gai discloses (on Figures 7A and 7B) the tag describing an object of a communication which including the fields (such as Network Protocol/Port Number, IP address, etc.) are obtained from the communication.

Examiner respectfully disagrees with all other allegations as argued as will be discussed in detail below. Examiner, in her previous office action gave detail

Art Unit: 2163

explanation of claimed limitation and pointed out exact locations in the cited prior art.

Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. See MPEP 2111[R-1]

Interpretation of Claims-Broadest Reasonable Interpretation

During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification'.

Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969).

5.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-9 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. 7,185,073 B1 issued to Gai et al. ("Gai").

As per claim 1, Gai teaches “a computer readable medium having stored thereon data representing instructions that, when executed by a processor, cause the processor to perform operations comprising”:

generating a tag describing an object of a communication captured during transmission of the communication from an origination address to a destination address, extracted from the communication, and stored in a memory block, wherein the tag includes, (column 8 lines 31-52)

”a source address field to indicate an origination address of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5),

“a destination address field to indicate a destination address of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5),

“a source port field to indicate an origination port of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5),

“a destination port field to indicate a destination port of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5),

Art Unit: 2163

"a content field to indicate a content type from a plurality of content types identifying a type of content contained in the object," (column 11 lines 48-66, Fig. 7B, Fig. 6), and

"a time field to indicate when the object was captured," (column 14 lines 30-46); and

"storing the tag in a database, wherein the tag indexes the object in the memory block, the tag being stored to allow subsequent searching for the object based on one or more of the fields, wherein the fields are obtained from the communication (Figures 7A, 7B).

As per claim 2, Gai further shows "the plurality of content types," comprises:

"JPEG, GIF, BMP, TIFF, PNG, Skintone, PDF, MSWord, Excel, PowerPoint, MSOffice, HTML, WebMail, SMTP, Telnet, Rlogin, FTP, Chat, GZIP, ZIP, TAR, C++ Source, C Source, FORTRAN Source, Verilog Source, C Shell, K Shell, Bash Shell, Plaintext, Crypto, LIF, Binary Unknown, ASCII Unknown, and Unknown," (column 11 lines 48-66, Fig. 7B, Fig. 6).

As per claim 3, Gai further shows "generating a device identity field to indicate a device that captured the object," (column 12 lines 46-66, column 13 lines 1-6).

As per claim 4, Gai further shows "generating a protocol field to indicate the protocol that carried the object," (column 12 lines 46-66, column 13 lines 1-6, Fig. 7B).

As per claim 5, Gai further shows “an instance field to indicate a number of the object in a connection,” (column 14 lines 30-62).

As per claim 6, Gai further shows “generating an encoding field to indicate a how the object was encoded,” (column 19 lines 1-14, column 19 lines 26-37).

As per claim 7, Gai further shows “generating a size field to indicate the size of the object,” (column 8 lines 40-52).

As per claim 8, Gai further shows “generating an owner field to indicate an entity that requested capture of the object,” (column 12 lines 10-23, column 18 lines 37-66).

As per claim 9, Gai further shows “generating a capture rule field to indicate a rule that triggered capture of the object,” (column 19 lines 1-37).

As per claim 26, Gai teaches “a method to index a captured object, comprising”:

generating for storage of objects of a communication captured during transmission of the communication from an origination address to a destination address, extracted from the communication, and stored in a memory block”:

“a source address field to indicate an origination address of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“a destination address field to indicate a destination address of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9

Art Unit: 2163

lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“a source port field to indicate an origination port of the object; a destination port field to indicate a destination port of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“a content field to indicate a content type from a plurality of content types identifying a type of content contained in the object,” (column 8 lines 31-52, column 11 lines 48-66, Fig. 7B, Fig. 6); and

“a time field to indicate when the object was captured,” (column 14 lines 30-46);
and

“storing data in the fields to create a tag, the tag indexing the objects in the memory block, the tag being stored to allow subsequent searching for the object based on one or more of the fields, wherein the fields are obtained from the communication (Figures 7A, 7B).

8. Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2163

Claims 10-17 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 7,185,073 B1 issued to Gai et al. ("Gai") and in view of "Cryptographic Hash Functions" issued to Bart Preneel ("Preneel").

As per claim 10, Gai does not explicitly teach "generating a signature field to store a signature of the object". However, Preneel teaches a similar data structure of hash function (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 11, Gai does not explicitly teach "the signature comprises a digital cryptographic signature". However, Preneel teaches a hash function to generate signature (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 12, Gai does not explicitly teach "generating a tag signature field to store a signature of the data structure". However, Preneel teaches a similar data structure of hash function (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by

Art Unit: 2163

using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 13, Gai does not explicitly teach “the tag signature comprises a digital cryptographic signature”. However, Preneel teaches a hash function to generate signature (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

10. As per claim 14, Gai explicitly teaches “a computer readable medium having stored thereon data representing instructions that, when executed by a processor, cause the processor to perform operations comprising”:

storing data associated with an object of a communication captured during transmission of the communication from an origination address to a destination address, extracted from the communication, and stored in a memory block by a capture system to create a tag that indexes the object in the memory block, the data comprising:

”an Ethernet controller MAC address of the capture system that captured the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 8 lines 53-66, column 9 lines 1-4, column 8 lines 31-66, column 9 lines 1-4);

”a source Ethernet IP address of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

Art Unit: 2163

“a destination Ethernet IP address of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“a source TCP/IP port number of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“a destination TCP/IP port number of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“an IP protocol that carried the object when captured by the capture system,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“a canonical count of a number of the object within a TCP/IP connection,” (column 2 lines 15-27);

“a content type of the object,” (column 11 lines 48-66, Fig. 7B, Fig. 6);

“an encoding that was used on the object,” (column 19 lines 1-14, column 19 lines 26-37);

“a size of the object,” (column 8 lines 40-52);

Art Unit: 2163

“a timestamp indicating when the capture system captured the object,” (column 14 lines 30-46);

“a user who requested capture of the object,” (column 12 lines 10-23, column 18 lines 37-66);

“a capture rule that directed capture of the object,” (column 19 lines 1-37);

the tag being stored to allow subsequent searching for the object based on one or more of the fields, wherein the IP address are obtained from the communication (Figures 7A, 7B).

Gai does not explicitly teach “a hash signature of the object” and “a hash signature of the tag”. However, Preneel teaches hash function of the object and hash function of the tag to generate tag signature and verify if they have been modified (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 15, Gai does not explicitly teach “the hash signature of the object comprises a digital cryptographic signature of the object”. However, Preneel teaches a hash function to generate signature (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

Art Unit: 2163

As per claim 16, Gai does not explicitly teach “the hash signature of the tag comprises a digital cryptographic signature of the tag”. However, Preneel teaches a hash function to generate signature (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

As per claim 17, Gai explicitly teaches “the content type of the object is one of JPEG, GIF, BMP, TIFF, PNG, Skintone, PDF, MSWord, Excel, PowerPoint, MSOffice, HTML, WebMail, SMTP, Telnet, Rlogin, FTP, Chat, GZIP, ZIP, TAR, C++ Source, C Source, FORTRAN Source, Verilog Source, C Shell, K Shell, Bash Shell, Plaintext, Crypto, LIF, Binary Unknown, ASCII Unknown, and Unknown,” (column 11 lines 48-66, Fig. 7B, Fig. 6).

.As per claim 27, Gai explicitly teaches "a method to index a captured object, comprising":
storing data associated with an object of a communication captured during transmission of the communication from an origination address to a destination address, extracted from the communication, and stored in a memory block by a capture system to create a tag indexing the object in the memory block, the data comprising:
“an Ethernet controller MAC address of the capture system that captured the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 8 lines 53-66, column 9 lines 1-4, column 8 lines 31-66, column 9 lines 1-4);

Art Unit: 2163

“a source Ethernet IP address of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“a destination Ethernet IP address of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“a source TCP/IP port number of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“a destination TCP/IP port number of the object,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“an IP protocol that carried the object when captured by the capture system,” (column 1 lines 17-66, column 2 lines 1-66, column 3 lines 1-10, column 3 lines 12-34, column 3 lines 51-66, column 4 lines 1-16, column 8 lines 31-66, column 9 lines 1-4, column 15 lines 11-66, column 16 lines 1-5);

“a canonical count of a number of the object within a TCP/IP connection,” (column 2 lines 15-27);

“a content type of the object,” (column 11 lines 48-66, Fig. 7B, Fig. 6);

Art Unit: 2163

“an encoding that was used on the object,” (column 19 lines 1-14, column 19 lines 26-37);

“a size of the object,” (column 8 lines 40-52);

“a timestamp indicating when the capture system captured the object,” (column 14 lines 30-46);

“a user who requested capture of the object,” (column 12 lines 10-23, column 18 lines 37-66);

“a capture rule that directed capture of the object,” (column 19 lines 1-37);

“the tag being stored to allow subsequent searching for the object based on one or more of the fields, wherein the IP addresses are obtained from the communication (Figures 7A, 7B).

Gai does not explicitly teach “a hash signature of the object”, “a hash signature of the object”, and “a hash signature of the tag”. However, Preneel teaches hash function of the object and hash function of the tag to generate tag signature and verify if they have been modified (pages 2-5 sections 2-2.3). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the data structure of Gai with the teaching of Preneel by using the hash function to solve the security problems in telecommunication and computer networks.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim T. Nguyen whose telephone number is (571)270-1757. The examiner can normally be reached on 7:30AM to 5:00PM East. Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571)272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

May 12, 2010

/K. T. N./

Examiner, Art Unit 2163

Art Unit: 2163

/don wong/

Supervisory Patent Examiner, Art Unit 2163

